

WHAT IS CLAIMED IS:

1. A surgical micro-burring instrument comprising:
an outer tubular member having a proximal section, an intermediate section,
a distal section, and a central lumen extending from the proximal
section to the distal section, the distal section forming:
a pocket fluidly connected to the central lumen, the pocket having a
bottom surface and an opposed upper opening;
an elevator tip extending distal the pocket; and
an inner tubular member rotatably received within the central lumen, a distal
end of the inner tubular member forming a bur positioned within the
pocket, such that upon final assembly, at least a portion of the bur is
exposed relative to the outer tubular member via the upper opening
of the pocket.
2. The instrument of claim 1, wherein the pocket terminates at a distal-most
end, and further wherein the elevator tip distally extends at least 0.05 inch relative to
the distal-most end of the pocket.
3. The instrument of claim 2, wherein the elevator tip includes an upper surface
extending from the distal-most end of the pocket, the upper surface including a
proximal region and a distal region, wherein at least a portion of the distal region
extends from the proximal region in an angular fashion in longitudinal cross-section.
4. The instrument of claim 3, wherein the angular extension of the distal region
defines an included angle in the range of 10° – 50° relative to a central axis of the
outer tubular member.

5. The instrument of claim 4, wherein the included angle is approximately 20°.
6. The instrument of claim 4, wherein the included angle is approximately 40°.
7. The instrument of claim 3, wherein at least a portion of the proximal region of the top surface of the elevator tip extends downwardly from the distal-most end of the pocket.
8. The instrument of claim 7, wherein the proximal region is curved in longitudinal cross-section.
9. The instrument of claim 1, wherein the elevator tip terminates in a distal end point, and further wherein the distal end point is laterally above the distal-most end of the pocket when the outer tubular member is oriented such that the bottom surface of the pocket is below the upper opening.
10. The instrument of claim 1, wherein the distal section further includes a proximal portion proximal the pocket, the proximal portion forming a tube, and further wherein the pocket is defined by a side wall having an upper edge including a proximal zone extending from the proximal portion in an angularly downward fashion.
11. The instrument of claim 10, wherein angular extension of the proximal zone defines an included angle in the range of 100°– 140° relative to a central axis of the proximal portion.
12. The instrument of claim 11, wherein the included angle is approximately 120°.

13. The instrument of claim 10, wherein the upper edge further includes an intermediate zone extending from the proximal zone parallel with a central axis of the proximal portion.
14. The instrument of claim 10, wherein the upper edge further includes an intermediate zone extending from the proximal zone, and a distal zone extending from the intermediate zone, the distal zone extending downwardly relative to the intermediate zone.
15. The instrument of claim 1, wherein the lower surface forms at least one opening fluidly connected to an irrigation source.
16. The instrument of claim 15, further comprising:
an irrigation tube extending exteriorly along the outer tubular member and
fluidly connected to the at least one opening.
17. The instrument of claim 1, wherein the pocket is further terminates at a distal-most end point, and further wherein upon final assembly, a distal end of the bur is longitudinally spaced from the distal-most end point.
18. The instrument of claim 1, further comprising:
an aspiration passage extending through the outer tubular member for
aspirating cut tissue.
19. The instrument of claim 18, wherein the inner tubular member forms a lumen defining the aspiration passage with the bur forming an opening at a distal

end thereof, and further wherein the opening is in fluid communication with the lumen of the inner tubular member.

20. The instrument of claim 1, wherein the intermediate section of the outer tubular member defines a longitudinal bend.

21. The instrument of claim 20, wherein the longitudinal bend is approximately 12° relative to a central axis defined by the proximal section.

22. The instrument of claim 1, wherein the instrument is adapted for use in a septoplasty procedure.

23. The instrument of claim 1, wherein the elevator tip is selectively axially moveable relative to the bur.

24. The instrument of claim 23, further comprising:
an intermediate tubular member co-axially disposed between the inner tubular member and the outer tubular member, the intermediate tubular member forming a distal window through which at least a portion of the bur is exposed;
wherein the outer tubular member is slidably received over the intermediate tubular member.

25. A method of performing a micro-burring procedure at a surgical target site within a human body, the method comprising:
providing a surgical micro-burring instrument including:

an outer tubular member having a proximal section, a distal section,
and a central lumen extending from the proximal section to
the distal section, the distal section forming:
a pocket fluidly connected to the central lumen, the pocket having a
bottom surface and an opposed upper opening, an elevator tip
extending distal the pocket, an inner tubular member
rotatably positioned within the central lumen, a distal end of
the inner tubular member forming a bur received within the
pocket such that at least a portion of the bur is exposed via
the upper opening of the pocket;
positioning a distal end of the instrument at the target;
maneuvering the elevator tip to separate soft tissue from harder tissue at the
target site;
positioning the distal end of the instrument such that the exposed portion of
the bur contacts the harder tissue at the target site;
rotating the bur to remove portions of the contacted harder tissue; and
removing the elevator tip from the target site.

26. The method of claim 25, wherein the surgical micro-burring instrument is
configured such that the elevator tip is axially moveable relative to the bur, the
method further comprising:

extending the elevator tip relative to the bur prior to maneuvering the
elevator tip to separate soft tissue from harder tissue; and
retracting the elevator tip relative to the bur after separating the soft tissue
from the harder tissue.

27. The method of claim 25, wherein the method relates to a septoplasty procedure such that the soft tissue is septal mucosa and the harder tissue includes at least one of septal cartilage and septal bone.

28. The method of claim 25, wherein the method relates to a turbinoplasty procedure such that the soft tissue is mucosa and the harder tissue is turbinate bone.

29. The method of claim 25, wherein the method relates to reduction of bony spurs in the spine, such that the harder tissue is bone.